# Список публикаций П.В. Осиненко Научные статьи в рецензируемых журналах и конференциях

П.В. Осиненко

28 августа 2025 г.

## Общая статистика публикационной активности

Метрика	Значение
Bcero публикаций	70+
Публикаций первым автором	40+
Период публикаций	2011-2025
Среднее количество публикаций в год	5.0

## Статистика цитирования

Метрика	Bce	Начиная с 2020 г.
Процитировано	600+	500+
h-индекс	12+	11+
і10-индекс	15+	13+

## Цитирования по годам

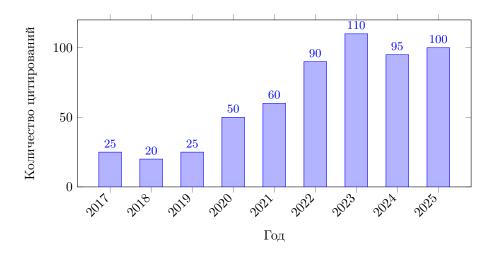


Рис. 1: Динамика цитирований по годам

#### Основные направления исследований

- Теория управления и автоматизация 50+ публикаций
- Машинное обучение и искусственный интеллект 35+ публикаций
- Оптимизация и алгоритмы 12+ публикаций
- Сельскохозяйственная робототехника 8+ публикаций
- Энергетические системы 3+ публикации

### Ведущие журналы и конференции

- IFAC-PapersOnLine 15+ публикаций
- IEEE Access 12+ публикаций
- IEEE Control Systems Letters 6+ публикаций
- IEEE Transactions on Automatic Control 6+ публикаций
- Control Engineering Practice 3+ публикации

### Публикации

- [1] P. V. Osinenko, M. Geissler, and T. Herlitzius, "A method of optimal traction control for farm tractors with feedback of drive torque," *Biosystems Engineering*, vol. 129, pp. 20–33, 2015.
- [2] P. Osinenko and S. Streif, "Optimal traction control for heavy-duty vehicles," *Control Engineering Practice*, vol. 69, pp. 99–111, 2017.
- [3] P. Osinenko, D. Dobriborsci, and W. Aumer, "Reinforcement learning with guarantees: a review," *IFAC-PapersOnLine*, vol. 55, no. 15, pp. 123–128, 2022.
- [4] P. Osinenko, K. Biegert, R. J. McCormick, T. Göhrt, G. Devadze, J. Streif, and S. Streif, "Application of non-destructive sensors and big data analysis to predict physiological storage disorders and fruit firmness in 'braeburn' apples," Computers and Electronics in Agriculture, vol. 183, p. 106015, 2021.
- [5] S. Ibrahim, M. Mostafa, A. Jnadi, H. Salloum, and P. Osinenko, "Comprehensive overview of reward engineering and shaping in advancing reinforcement learning applications," *IEEE Access*, vol. 12, pp. 175473–175500, 2024.
- [6] T. Bögel, P. Osinenko, and T. Herlitzius, "Assessment of soil roughness after tillage using spectral analysis," *Soil and Tillage Research*, vol. 159, pp. 73–82, 2016.
- [7] P. Osinenko, L. Beckenbach, T. Göhrt, and S. Streif, "A reinforcement learning method with closed-loop stability guarantee," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 8043–8048, 2020.
- [8] L. Beckenbach, P. Osinenko, and S. Streif, "A q-learning predictive control scheme with guaranteed stability," *European Journal of Control*, vol. 56, pp. 167–178, 2020.
- [9] L. Beckenbach, P. Osinenko, T. Gohrt, and S. Streif, "Constrained and stabilizing stacked adaptive dynamic programming and a comparison with model predictive control," 2018 European Control Conference (ECC), pp. 1349–1354, 2018.

- [10] P. Osinenko, L. Beckenbach, and S. Streif, "Practical sample-and-hold stabilization of nonlinear systems under approximate optimizers," *IEEE Control Systems Letters*, vol. 2, no. 4, pp. 569–574, 2018.
- [11] L. Beckenbach, P. Osinenko, and S. Streif, "Addressing infinite-horizon optimization in mpc via q-learning," *IFAC-PapersOnLine*, vol. 51, no. 20, pp. 60–65, 2018. 6th IFAC Conference on Nonlinear Model Predictive Control NMPC 2018.
- [12] P. Schmidt, P. Osinenko, and S. Streif, "On inf-convolution-based robust practical stabilization under computational uncertainty," *IEEE Transactions on Automatic Control*, vol. 66, no. 11, pp. 5530–5537, 2021.
- [13] P. Osinenko, T. Göhrt, G. Devadze, and S. Streif, "Stacked adaptive dynamic programming with unknown system model," *IFAC-PapersOnLine*, vol. 50, no. 1, pp. 4150–4155, 2017. 20th IFAC World Congress.
- [14] P. Osinenko, G. Devadze, and S. Streif, "Constructive analysis of control system stability," *IFAC-PapersOnLine*, vol. 50, no. 1, pp. 7467–7474, 2017. 20th IFAC World Congress.
- [15] A. Morozov, M. Pugach, A. Polyakov, P. Osinenko, A. Bolychev, V. Terzija, and S. Parsegov, "Optimal flow factor determination in vanadium redox flow battery control," *IEEE Access*, vol. 12, pp. 19277– 19284, 2024.
- [16] P. Osinenko, G. Yaremenko, and G. Malaniya, "On stochastic stabilization via nonsmooth control lyapunov functions," *IEEE Transactions on Automatic Control*, vol. 68, no. 8, pp. 4925–4931, 2023.
- [17] P. Osinenko, Optimal slip control for tractors with feedback of drive torque. Dissertation, Technische Universität Dresden, Faculty of Mechanical Science and Engineering, Dresden, Germany, 2015. Doktor der Ingenieurwissenschaften (Dr.-Ing.).
- [18] P. Osinenko, M. Geissler, and T. Herlitzius, "Adaptive unscented kaiman filter with a fuzzy supervisor for electrified drive train tractors," 2014 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), pp. 322–331, 2014.
- [19] O. P.V., "Improving data processing methods for ground vehicle testing," *Tractors and Agricultural Machines*, no. 7, pp. 19–22, 2011. UDC: 629.114.2.
- [20] P. Osinenko and D. Dobriborsci, "Effects of sampling and prediction horizon in reinforcement learning," *IEEE Access*, vol. 9, pp. 127611–127618, 2021.
- [21] P. Osinenko, M. Geissler, T. Herlitzius, and S. Streif, "Experimental results of slip control with a fuzzy-logic-assisted unscented kalman filter for state estimation," 2016 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), pp. 501–507, 2016.
- [22] P. Osinenko, D. Dobriborsci, G. Yaremenko, and G. Malaniya, "A generalized stacked reinforcement learning method for sampled systems," *IEEE Transactions on Automatic Control*, vol. 68, no. 11, pp. 7006–7013, 2023.
- [23] A. Kobelski, P. Osinenko, and S. Streif, "Experimental verification of an online traction parameter identification method," *Control Engineering Practice*, vol. 113, p. 104837, 2021.
- [24] P. Osinenko, G. Devadze, and S. Streif, "Practical stability analysis of sliding-mode control with explicit computation of sampling time," *Asian Journal of Control*, vol. 22, p. 1692–1699, Feb. 2019.
- [25] L. Beckenbach, P. Osinenko, and S. Streif, "Model predictive control with stage cost shaping inspired by reinforcement learning," 2019 IEEE 58th Conference on Decision and Control (CDC), pp. 7110–7115, 2019.
- [26] T. Gohrt, P. Osinenko, and S. Streif, "Adaptive dynamic programming using lyapunov function constraints," *IEEE Control Systems Letters*, vol. 3, no. 4, pp. 901–906, 2019.

- [27] P. Osinenko, G. Yaremenko, R. Zashchitin, A. Bolychev, S. Ibrahim, and D. Dobriborsci, "Critic as lyapunov function (calf): a model-free, stability-ensuring agent," 2024 IEEE 63rd Conference on Decision and Control (CDC), pp. 2517–2524, 2024.
- [28] L. Beckenbach, P. Osinenko, and S. Streif, "On closed-loop stability of model predictive controllers with learning costs," in 2020 European Control Conference (ECC), pp. 184–189, 2020.
- [29] A. Kobelski, P. Osinenko, and S. Streif, "A method of online traction parameter identification and mapping," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 13933–13938, 2020.
- [30] D. Dobriborsci, R. Zashchitin, M. Kakanov, W. Aumer, and P. Osinenko, "Predictive reinforcement learning: map-less navigation method for mobile robot," *Journal of Intelligent Manufacturing*, vol. 35, p. 4217–4232, Aug. 2023.
- [31] D. Dobriborsci, P. Osinenko, and W. Aumer, "An experimental study of two predictive reinforcement learning methods and comparison with model-predictive control," *IFAC-PapersOnLine*, vol. 55, no. 10, pp. 1545–1550, 2022.
- [32] M. A. Larchenko, P. Osinenko, G. Yaremenko, and V. V. Palyulin, "A study of first-passage time minimization via q-learning in heated gridworlds," *IEEE Access*, vol. 9, pp. 159349–159363, 2021.
- [33] P. Osinenko, G. Devadze, and S. Streif, "Constructive analysis of eigenvalue problems in control under numerical uncertainty," *International Journal of Control, Automation and Systems*, vol. 18, p. 2177–2185, Apr. 2020.
- [34] F. Rußwurm, P. Osinenko, and S. Streif, "Optimal control of centrifugal spreader," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 15841–15846, 2020.
- [35] T. Göhrt, P. Osinenko, and S. Streif, "Adaptive actor-critic structure for parametrized controllers," *IFAC-PapersOnLine*, vol. 52, no. 16, pp. 652–657, 2019.
- [36] P. Osinenko, G. Devadze, and S. Streif, "Analysis of the caratheodory s theorem on dynamical system trajectories under numerical uncertainty," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 4, pp. 787–793, 2018.
- [37] P. Osinenko, M. Geißler, and T. Herlitzius, "Fuzzy-logic assisted power management for electrified mobile machinery," Neurocomputing, vol. 170, pp. 439–447, 2015. Advances on Biological Rhythmic Pattern Generation: Experiments, Algorithms and Applications Selected Papers from the 2013 International Conference on Intelligence Science and Big Data Engineering (IScIDE 2013) Computational Energy Management in Smart Grids.
- [38] I. Osokin, I. Ryakin, S. Moghimi, M. Patrikeev, I. Barsky, and P. Osinenko, "Neural network-based classification for automated powdery mildew detection in modern tomato greenhouses," *IEEE Access*, vol. 12, pp. 86782–86789, 2024.
- [39] P. Osinenko and G. Yaremenko, "On stochastic stabilization of sampled systems," in 2021 60th IEEE Conference on Decision and Control (CDC), pp. 5326–5331, 2021.
- [40] P. Osinenko, "Towards a constructive framework for control theory," *IEEE Control Systems Letters*, vol. 6, pp. 379–384, 2022.
- [41] P. Osinenko and S. Streif, "Analysis of extremum value theorems for function spaces in optimal control under numerical uncertainty," *IMA Journal of Mathematical Control and Information*, vol. 36, no. 3, pp. 1015–1032, 2019.
- [42] P. Osinenko and S. Streif, "A constructive version of the extremum value theorem for spaces of vector-valued functions," *Journal of Logic and Analysis*, vol. 10, 2018. Available at logicandanalysis.com.
- [43] L. Beckenbach, P. Osinenko, and S. Streif, "A stabilizing reinforcement learning approach for sampled systems with partially unknown models," *International Journal of Robust and Nonlinear Control*, vol. 34, no. 18, pp. 12389–12412, 2024.

- [44] P. Osinenko, V. Voronin, and M. Sidorov, "Improved measurement system for ground vehicles," *Agricultural Machines and Technologies*, no. 1, pp. 27–29, 2012. KF Bauman Moscow State Technical University.
- [45] P. Osinenko, G. Yaremenko, G. Malaniya, and A. Bolychev, "An actor-critic framework for online control with environment stability guarantee," *IEEE Access*, vol. 11, pp. 89188–89204, 2023.
- [46] P. Osinenko, P. Schmidt, and S. Streif, "Nonsmooth stabilization and its computational aspects," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 6370–6377, 2020. 21st IFAC World Congress.
- [47] T. Göhrt, P. Osinenko, and S. Streif, "Converse optimality for discrete-time systems," *IEEE Transactions on Automatic Control*, vol. 65, no. 5, pp. 2257–2264, 2020.
- [48] M. Geissler, P. Osinenko, and T. Herlitzius, "Winding switching strategy for electric wheel drives in agricultural machinery," 2015 IEEE International Conference on Industrial Technology (ICIT), pp. 851– 856, 2015.
- [49] S. Pandey, S. Kamal, P. Osinenko, S. Parsegov, and D. Singh, "Finite and fixed-time stabilization of discrete-time systems using passivity-based control," *International Journal of Robust and Nonlinear Control*, vol. 34, p. 8481–8494, May 2024.
- [50] D. Dobriborsci, I. Chichkanov, R. Zashchitin, and P. Osinenko, "Model-based reinforcement learning experimental study for mobile robot navigation," 2024 10th International Conference on Control, Decision and Information Technologies (CoDIT), vol. 16, pp. 1825–1830, 2024.
- [51] S. Ibrahim, S. M. A. Kazmi, D. Dobriborsci, R. Zashchitin, M. Mostafa, and P. Osinenko, "Reward planning for underactuated robotic systems with parameters uncertainty: Greedy-divide and conquer," in 2024 10th International Conference on Control, Decision and Information Technologies (CoDIT), pp. 1518–1523, 2024.
- [52] V. Erofeeva, S. Parsegov, P. Osinenko, and S. Kamal, "Distributed state estimation for multi-area data reconciliation," 2023 31st Mediterranean Conference on Control and Automation (MED), pp. 954–959, 2023.
- [53] P. Osinenko and S. Streif, "On constructive extractability of measurable selectors of set-valued maps," *IEEE Transactions on Automatic Control*, vol. 66, no. 8, pp. 3757–3764, 2021.
- [54] M. Vulf, D. Zharikov, D. Kolomenskiy, D. Eskin, and P. Osinenko, "Machine learning-based classification of suspension droplet-solid wall impacts for control of droplet fragmentation," *IEEE Access*, vol. 13, pp. 137179–137208, 2025.
- [55] I. Osokin, I. Ryakin, S. Moghimi, S. Davidenko, V. Guneavoi, G. Yaremenko, and P. Osinenko, "Tangerine volume estimation by point cloud data with neural networks," 2025 IEEE 26th International Conference of Young Professionals in Electron Devices and Materials (EDM), pp. 1200–1203, 2025.
- [56] G. Malaniya, A. Bolychev, P. Osinenko, and G. Yaremenko, "Regelum: Graph dependency resolution and execution orchestration for control systems," 2025 IEEE 26th International Conference of Young Professionals in Electron Devices and Materials (EDM), pp. 1470–1475, 2025.
- [57] G. Yaremenko, A. Bolychev, G. Malaniya, and P. Osinenko, "A probabilistic mechanism for safe reinforcement learning," 2025 IEEE 26th International Conference of Young Professionals in Electron Devices and Materials (EDM), pp. 1230–1235, 2025.
- [58] G. Malaniya, A. Bolychev, G. Yaremenko, and P. Osinenko, "On limitations of ensuring stability in reinforcement learning under robustifying control," in 2025 IEEE 26th International Conference of Young Professionals in Electron Devices and Materials (EDM), pp. 1270–1275, 2025.
- [59] M. Griguletskii and P. Osinenko, "Moduslam: A modular framework for factor graph-based localization and mapping," 2025 IEEE 26th International Conference of Young Professionals in Electron Devices and Materials (EDM), pp. 1210–1215, 2025.

- [60] G. Yamerenko, S. Ibrahim, F. Moreno-Mora, P. Osinenko, and S. Streif, "Generating informative benchmarks for reinforcement learning," *IEEE Control Systems Letters*, vol. 9, pp. 480–485, 2025.
- [61] P. Schmidt, P. Osinenko, and S. Streif, "Some remarks on robustness of sample-and-hold stabilization," *IEEE Control Systems Letters*, vol. 8, pp. 3464–3469, 2025.
- [62] P. Schmidt, P. Osinenko, and S. Streif, "Some remarks on practical stabilization via clf-based control under measurement noise," *IEEE Access*, vol. 13, pp. 1882–1895, 2024.
- [63] D. Belov, A. Erkhov, F. Khabibullin, E. Pestova, S. Satsevich, I. Osokin, P. Osinenko, and D. Tsetserukou, "Optimizing energy consumption for legged robot by adapting equilibrium position and stiffness of a parallel torsion spring," 2024 IEEE International Conference on Robotics and Biomimetics (ROBIO), pp. 832–836, 2024.
- [64] M. Vulf, A. Bolychev, D. Kolomenskiy, and P. Osinenko, "Model-free control for drop-on-demand droplet generation using reinforcement learning," 2024 European Control Conference (ECC), pp. 2534–2539, 2024.
- [65] P. Prasun, V. K. Singh, V. Pandey, S. Kamal, S. Ghosh, P. Osinenko, and S. Parsegov, "Sliding mode control for a class of systems based on a non-monotonic lyapunov function," 2023 31st Mediterranean Conference on Control and Automation (MED), pp. 618–623, 2023.
- [66] P. Graf, "A note on flenner's extension theorem," manuscripta mathematica, vol. 165, no. 3-4, pp. 597–603, 2016.
- [67] I. Ryakin, S. Moghimi, V. Guneavoy, S. Davidenko, M. Patrikeev, I. Osokin, and P. Osinenko, "On the ransac performance for quadric surfaces in noisy conditions," *IEEE Access*, vol. 13, pp. 66984–66993, 2025.
- [68] P. Osinenko, G. Malaniya, G. Yaremenko, and I. Osokin, "A comment on stabilizing reinforcement learning," arXiv preprint arXiv:2111.12316, 2021.
- [69] P. V. Osinenko, "Improving the methods of processing test data of land-based vehicles," Vestnik of N.E. Bauman Moscow State Technical University, Series Mechanical Engineering, vol. 78, no. 7, pp. 19–22, 2011.